2: Murra E-4 (no date) 1943 SD6 Cayapa SD6

as that of the plantain. Almost every family owns its cane mill and distillery, which are supplied by the omnipresent canefields.

With all this emphasis on agriculture, the *Cayapa* are, nevertheless, a jungle people, skilled hunters of many species of rodents, deer, felines, peccaries, armadillos, and birds. Life at the riverside encourages and is encouraged by dependence on fish, crustaceans, shellfish, and crocodile eggs. Under aboriginal conditions the *Cayapa* were probably never hungry.

Hogs and chickens are now kept everywhere. Dogs are not conspicuously reported.

Food is mostly boiled, though frequently meat will be broiled or baked. Surpluses are dried and smoked.

HOUSES AND VILLAGES

Though maps traditionally locate *Cayapa* "villages," these are nothing but agglomerations of three or four houses and a church. The houses stand empty most of the year and are used only at holidays when the priests visit the *Cayapa*.

The actual habitations of the people are spread through the jungle, always at riversides (pl. 57, *top*) and usually isolated from one another by fields or even uncleared stretches. The houses stand on high poles 6 to 12 feet off the ground and are reached by removable ladders. The roof is thatched with palm leaves (pl. 57, *center*), and the rectangular house is virtually unenclosed. Sometimes the house floor is separated into two parts, one for cooking, the other for sleeping and eating. One chief had a large house (pl. 57, *bottom*) which could seat 40 people and which had more than two "rooms." The furniture is scanty: hammocks are used for sitting and sleeping, and wooden seats are sometimes found. An attempt by Barrett to correlate these seats with the famous stone seats of Manabi (Handbook, vol. 2, p. 780) seems very inconclusive.

In addition to permanent houses, small temporary ranchos are sometimes built when people are far from home. The houses in the "village" are standard structures, but the church follows Spanish ways: it rests on the ground and has walls.

CLOTHING AND ADORNMENT

Although *Cayapa* tradition records a period when the people wore blankets and even ponchos, today their clothes are scanty (pl. 59, *bottom*). The men wear a tight, small, white garment, made like bathing trunks, and a thin gaudy shirt of calico, with short and very tight sleeves. On festive occasions vests of European cut and manufacture are frequently donned over the shirt, and so are felt fedoras.

Women wear a long skirt of native cloth, girded with a narrow fringed belt. As in the Highlands, several skirts of different weights are sometimes worn. Head, shoulders, and chest are usually left bare.

3: Barrett E-5 (1908-1909)1925
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At an early age the girls are instructed in household duties of all kinds, and often begin to spin and weave, as well as to make pottery, basketry, and other articles, at the age of five or six years. They also take a hand in agriculture when very small. As they grow older and become more proficient in these various arts, they enter more and more into the regular daily work of the home, until they finally marry, which they usually do at an early age, often at about seventeen or eighteen years.

The daily life of the men is also a busy one. They do their share of the work in the fields, besides being industrious hunters and fishermen. They are expert woodworkers, making very excellent canoes, paddles, benches, images used as toys by children, musical instruments, certain cooking utensils, and various other objects of wood. They make and tend the fish corrals as well as set the seines when the water is in a favorable condition to divert fish to certain places. In addition to trapping and netting fish, they also do much fishing with hook and line. They hunt a great deal and procure a very important part of the food supply in that way, for the jungle abounds in many kinds of game. When about the house, they are, like the women, almost always busy at something, as adzing a canoe, weaving a net, or doing some one of the many kinds of work which fall to the man's lot in the Cayapa division of labor. Since the introduction of needles and thread among the Cayapa, the men have taken up sewing and have become very efficient tailors for their simple needs.

3: Barrett E-5 (1908-1909)1925
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Food and its Preparation

241 262 The territory of the Cayapa is abundantly supplied by nature with both vegetal and animal foods, the former being the more important. In addition, various introduced vegetal foods are now raised by the natives, the most notable of which are plantains, bananas, sugar-cane, yuca, pineapples, cacao, and sweet potatoes. There are also various introduced fruits, such as guabos, caimitos, sapotis, papayas, and, to a limited extent, coconuts. In addition to these, many species of wild plants and trees yield foods; especially is this true of the palms, such as chonta dura and palma real.

224 262 The jungle abounds in a great variety of mammals and birds, most of which furnish food for the Indians. The mammals mostly used are the guanta and the guatin, two large species of rodents, the peccary, the wild-hog, the deer, the jaguar, the puma, the ocelot, a small species of red squirrel, a large species of wood-rat, the sloth, the ant-eater, and the armadillo. The birds most used as food are two species of grouse, two species of wild turkey, two species of toucan, and several species of dove. The rivers abound in various kinds of fish, several of which are eaten by the Cayapa. A species of lobster is also plentiful in the streams, and there is a very small mussel-like bivalve which is consumed to a limited extent. Reptiles of all kinds are shunned although the boa and certain other species of large serpents occur in the region. The iguana and its eggs are much prized as food, and numbers of these large lizards are taken in the season when they come down

3: Barrett E-5 (1908-1909)1925
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to the river to lay their eggs. The large eggs of the alligator are also much in favor, and it is said by some that alligator flesh is edible. The eggs and flesh of another and slightly different species of amphibian, called tulicio in the local Spanish, are likewise used for food. In addition to these foods there are certain insects which, either full-grown or in the larval state, are much esteemed.

Various methods are employed in the preparation of these foods. The plantain, the most important food product of the Cayapa, is prepared in a variety of ways. It is almost invariably gathered while green, and is regularly eaten in that condition, though ripe plantain is frequently used for making a kind of gruel, and occasionally it is roasted. The usual method of preparing the green plantains is by boiling, the outer covering of the fruit having first been removed. They are thus cooked for from a half to three-quarters of an hour in a pottery vessel, or nowadays more frequently in an iron or a granite-iron kettle, closely covered with a green leaf called ũ'tya hakĭ, which is very tough and is used in many ways in the preparation of food. It is impossible to cook green plantain so that it is tender, hence the usual mode of preparing it is to beat the hard, cooked fruit with a stone muller upon a mealing stone (pl. LXII, 1, 2), mixing and kneading it meanwhile with the hand. Usually this beaten plantain, which is called bala, is eaten without seasoning, although a little salt may be added; or it may be mixed with dried meat during the pounding. The boiled green plantain is also frequently eaten without

3: Barrett E-5 (1908-1909)1925
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planting. They are, however, all eaten raw and to a limited extent by the Cayapa whenever obtainable.

Hunting

In the Cayapa region, where game of various sorts is so abundant, hunting is a practice of considerable importance. This is now done almost entirely with old-fashioned muzzle-loading shotguns, which have supplanted blow-guns almost entirely. In aboriginal times the blow-gun was the chief weapon employed in hunting, and a few of them are still in use, especially by the boys in hunting small birds. In addition to the blow-gun the Cayapa say that they formerly had lances made entirely of the wood of certain hard palms, and that more recently they used the bow and arrow. They maintain that they originally did not know the use of the bow and arrow, but that they became acquainted with these only after coming down from the high mountains to the vicinity of their present abode, which was then occupied by another people. The bow and arrow appear to have been comparatively little used at any time by the Cayapa, but formerly the lance was much used in hunting wild hogs and one or two other species of game. In fact it is still used by some in hunting the guanta, a species of large rodent which lives in burrows.

The blow-gun, called by the Cayapa pitcə'ə, is a slender tube varying from about six to nine feet in length, made of palm-wood wrapped with pitigua and the whole covered with brea, the black waterproof wax used especially for calking canoes. The blow-gun tapers

3: Barrett E-5 (1908-1909)1925
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slightly toward its point, the opposite end being provided with a flaring mouth-piece two to three inches in diameter. It is made a follows: The innermost part consists of two pieces of palm-wood, each containing a groove, and forming, when placed together, a perfectly even-bored tube about three-eighths of an inch in diameter and with a wall half to three-quarters of an inch thick. The two halves of this tube are bound firmly together at from three to five points along its length by means of thin, narrow strips of pitigua, or with one of the stout fibers from the base of the leaf of the palma real. This binding is merely to hold the two halves of the tube together while they are being completely wrapped, which is done with strips of pitigua about one-sixteenth of an inch in thickness and one-quarter of an inch in width. It is wrapped tightly and very evenly from end to end in such manner as to completely cover the wood. This spiral wrapping of so long an object [384] requires a great length of these narrow strips. As the end of one strip is reached, the end of the next is inserted in such a manner as to be held firmly in place and to make each strip bind the next. This pitigua wrapping is in turn covered and made waterproof by a coating of brea, or wax, as above mentioned. On some of the blow-guns a hump is made in the brea at a point a short distance in front of the mouth-piece. This serves as a kind of sight by which to take aim, though obviously it is not a very accurate gauge, consequently the aiming is largely a matter of calculation by the hunter, and accuracy is acquired only by long practice. The

J: Barrett E-5 (1908-1909)1925
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mouth-piece of the blow-gun is made of a more or less funnel-shape piece of wood which fits to the larger end of the gun. The implement is shot by blowing the breath suddenly, though not too forcibly, through this mouth-piece.

In this tube are shot very light palm-wood darts, called mō'ĭc or hamhō tsā'ta, a foot or so in length and not much thicker than a heavy knitting-needle. Their lightness is overcome and the darts are given force by means of a weight of clay, called ya'tā'mita, placed near the point. To make them fit in the tube in such a manner as to be air-tight, and thus give the air an opportunity to exert its force upon them, a small wad of cotton, called kāmī ā'na, is wound about the dart near its middle. One of these darts is shown in fig. 7, *a*. Near the point may be seen the pear-shape clay weight, and about its middle the cotton wad. Such a small shaft would be of little service even

FIG. 7.—*a*, Dart of blow-gun; *b*, Quiver for blow-gun.

J: Barrett E-5 (1908-1909)1925
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in killing small birds if it were not for the fact that its tip is poisoned. The tip is sharply pointed and is covered for perhaps three-quarters of an inch back from its point with a vegetal poison called ba'mbi, consisting of the juice of a large tree growing in only a few places in the vicinity. This sap is gathered after the manner of rubber milk or the sande juice used in making torches. It is very viscous, and runs very slowly from a cut in the tree; in fact it is claimed that a few ounces only may be obtained from a tree in the course of a day. The juice dries within a few days, becoming solid and black or dark-brown in color. To get this into such a consistency that it may be applied to the points of the darts, a few drops of lemon or lime juice are added on one side of the receptacle in which it is kept, and a small amount of the poison worked up with this juice into a paste by means of a small paddle. The points are then dipped into this and revolved in order that they may be completely covered with it. They are then carefully laid out with a low support just back of the point so as to keep the poison from touching anything, and sufficiently low to prevent the paste from flowing back from the tip to any extent. The paste dries evenly around the point in about an hour and finally becomes very hard. When in this condition it will not rub off with ordinary friction, but immediately it comes into contact with liquid it dissolves. Thus, when a dart enters the body of a bird, a small mammal, or even a man, the poison quickly passes into the circulation. It is said to be very virulent poison and that

3: Barrett E-5 (1903-1909)1925
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death ensues within a few minutes, even in men or large mammals. The palm-wood from which the darts are made is very tough and ordinarily would break with difficulty, hence one of them shot into the body of an animal, especially a man or a monkey, could be easily withdrawn. To overcome this, two slight incisions are made around the shaft, just back of the poisoned tip, about a quarter of an inch apart, so that if the shaft enters a body it is almost certain to break with the force of the blow at one or the other of these incisions. In case the dart does not break of its own accord, it is quite sure to break if an attempt is made to extract it, and in either event the poisoned tip is left in the flesh of the victim. Great care must be exercised in making and in handling these darts in order that the owner himself does not get even a small amount of the poison into his system through an abrasion of the skin or by pricking himself with one of the sharp points, for it is claimed that such an accident would almost surely prove fatal. However, without thorough experimentation with this poison it is impossible to vouch for the extreme virulence attributed to it by the Cayapa. There seems, in fact, some reason to doubt its very rapid action on the larger mammals, though in the case of small mammals and birds it is undoubtedly very effective.

A small carrying case, or quiver, called hɔ́mbi pa'kɨ, such as that shown in fig. 7, *b*, is made especially for blow-gun darts. It consists of a bamboo tube, about an inch longer than the darts, which is filled with soft fibers from the young leaves of a certain species of palm,

3: Barrett E-5 (1908-1909)1925
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the fibers being placed vertically in the tube. This filler is called hambī yata′pī. The palm fibers protect the points of the darts and also prevent abrasion of the clay weights. The rear or unpoisoned ends of the darts project an inch or so above the filling, the projecting end serving as an easy means of extracting the darts as needed. In the above mentioned illustration the ends of some of the darts are shown projecting above the rim of the quiver. In actual use the ends of the darts are usually below the level of this rim and are thus afforded all possible protection. In making the drawing for this illustration it seemed desirable to show the ends of some of the darts, hence they were pulled up into view above the rim.

The usual method is to poison the points and make the incisions above mentioned directly back of the points, and then to place these incomplete darts in a mass in the center of the quiver. Attached to the quiver is a small receptacle, called *t*ō′kūbī, usually a little wickerwork basket, in which clay is carried. Also there is attached to the quiver a small calabash or other receptacle for cotton, called hambī kō-a′īū. These appurtenances enable the hunter to put the clay weight and the wad on the darts as fast as needed. This is necessary, since if they were prepared in any considerable numbers and not used, the clay and the cotton would be of no service later. Usually three or four darts at a time are weighted and wadded ready for use and then carefully placed, each one by itself, near the outer margin of the palm-fiber filler. The quiver is suspended upon the hunter's back by

3: Barrett E-5 (1908-1909)1925
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means of a string, called ya''tcua, which passes about the neck. 224 411

The blow-gun is carried over the shoulder or in the hand, but always with the point forward, since if it were reversed there would be danger of the mouth-piece being broken in passing through the jungle. When not in use the blow-gun is carefully keep in such position that no uneven strain comes upon any part of it, causing it to bend and thus to spoil its efficiency. It is frequently placed in the thatch under the eaves or in the loft of the house, but often it is suspended vertically by means of a string.

The blow-gun is an excellent and effective weapon for hunting all sorts of mammals and birds which live in trees or otherwise above the ground level, but for those which live always upon the ground and for birds on the wing this instrument is of little use, since it is not feasible to shoot horizontally or, in fact, at any considerable angle to the perpendicular, owing to the deflection due to gravity. Especially is this the case if the object shot at is small. The best results are obtained by getting almost directly under the object to be shot at and by this means practically overcoming the influence of gravity. Thus the blow-gun is especially used in shooting those mammals and birds, such as monkeys, squirrels, guatins, parrots, toucans, and a variety of other species, which are almost always to be found in trees.

The Cayapa were at all times inclined to be peaceable, but wars were sometimes forced upon the most peace- 126 721

3: Barrett E-5 (1908-1909)1925
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726 loving. It is said that on those rare occasions when the Cayapa engaged in hostilities, the blow-gun was used as a weapon, though the lance, called tsū'ta, seems to have been preferred. This weapon, six or seven feet in length, is made entirely of palm-wood, with a simple, 411 very sharp point. A rude lance is used even at the 224 present time in hunting certain mammals, especially the guanta (Cayapa wala'mbū), a large rodent which lives in a burrow. Armed with a lance, the hunter sits near the entrance to one of these burrows until the guanta comes out to feed, when he is able to spear it. On rare occasions also the lance is still used in hunting the wild hog and the peccary, which are both still fairly abundant in the jungle.

The bow and arrow, the use of which is claimed to have been derived by the Cayapa from their old enemies, the former inhabitants of the Rio Cayapas, is not very clearly remembered by them, for the reason that it has not been in use for many years. The arrows are said to have been about a yard in length with shafts made from a species of wild cane, called by the Spanish name caña brava and by the Cayapa nya'nyī. The points were made of hard palm-wood. The bow and arrow appear, however, to have been comparatively little used by them at any time, and almost never as an implement for hunting. No names other than the Spanish terms for these two weapons could be learned.

224 No nets or snares are used by the Cayapa in the capture of mammals or birds, and only one form of trap is employed. This is the small deadfall shown in

3: Barrett E-5 (1908-1909)1925
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fig. 8, used for catching small mammals, such as wood-rats, which abound in almost all parts of the jungle, and especially in places which have been recently cleared or about the edges of an old clearing. In large measure the boys build and tend these deadfalls, one or two boys sometimes having as many as half a dozen of them. They are constructed as follows: Two rows of upright sticks of almost any material are set just far enough

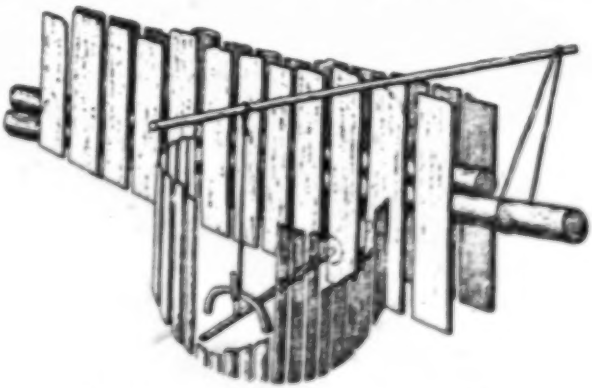

FIG. 8.—Deadfall trap for small mammals

apart to permit the free rise and fall of a log or a heavy section of the stem of a plantain or banana palm. These two rows of sticks form what may be termed the fences of the trap. To one end of this log, which is usually from four to six feet in length, is attached a cord or a piece of pitigua, which in turn is fastened to one end of the stick used as a lever. One of the upright sticks in one of the fences above mentioned is so notched as to receive this lever, which passes diagonally across it and out so that its other end is opposite a point about one-

3: Barrett E-5 (1908-1909)1925
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●224 third of the way down the log and perhaps a foot to one side of the fence. Another string or piece of pitigua is attached to this outer end of the lever and passed down to a small trigger by which the trap is sprung. The drawing for the illustration here given was so made as to show the manner in which the trigger and the bait-arm are set. This was done by cutting away in the drawing a part of the semicircular fence erected at the side of the trap to protect the trigger apparatus from being set off by some animal prowling about outside. A twig is set into the ground in a semicircular arch directly below the lever arm above mentioned. Through this arch passes the outer end of the bait-arm, the inner end of which extends through the fence which runs along the side of the log. This inner end bears, directly under the log, a piece of plantain or other bait. To hold this bait in its proper position, which is an inch or two from the ground, the outer end of the bait-arm is stuck into the ground very lightly. Its position must be firm enough to hold it sufficiently so that the pressure of the trigger upon it will not force it out of place and spring the trap; but it must not be too firm, lest the nibbling of the game at the bait will not move it sufficiently to release the trigger. The trigger is set vertically under the arch, and with its lower end resting upon this bait-arm, as is shown in the illustration, in such a manner that a very slight movement of the latter will release the trigger, which, operating through the lever, allows the log of the deadfall to drop upon the game. Often two or three rats are caught at one time with this device, which is

3: Barrett E-5 (1908-1909)1925
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made more effective, in case the single log above mentioned is not sufficiently heavy, by superimposing upon it another which not only adds weight and enables the trap to kill larger animals, but accelerates its action and diminishes the possibility of the game escaping after the trap is sprung but before the log can fall. Such a second log is usually a foot or so shorter than the other.

Fishing

The numerous streams of the Cayapa region are well stocked with various kinds of fish, many of which are used as food by the Indians. They are at present caught by six different methods. There are three types of nets, the "re," or large set-net, the atarraya or conical casting-net, and the small dip-net, used incidentally in connection with the set-net. These are all used to a considerable extent, especially the set-net; but the "corral," or impounding trap, the pole and line, and the "gig," or fish-spear, are much more generally used. Of these six devices, four only, the set-net, the dip-net, the corral, and the gig, appear to be of aboriginal origin.

The re, called in Cayapa wa'kū, is, like the other two nets used by the Cayapa, made of pita fiber string and is used especially in catching a very excellent species of shad (Spanish, sabalo), called by the Cayapa awī'lī. For this purpose it is made with a mesh of about three inches, and varies in length from about twenty to sixty feet according to the width of the particular estero in which it is to be used. Usually near a house there are one or more esteros where shad are fairly abundant,

3: Barrett E-5 (1908-1909)1925
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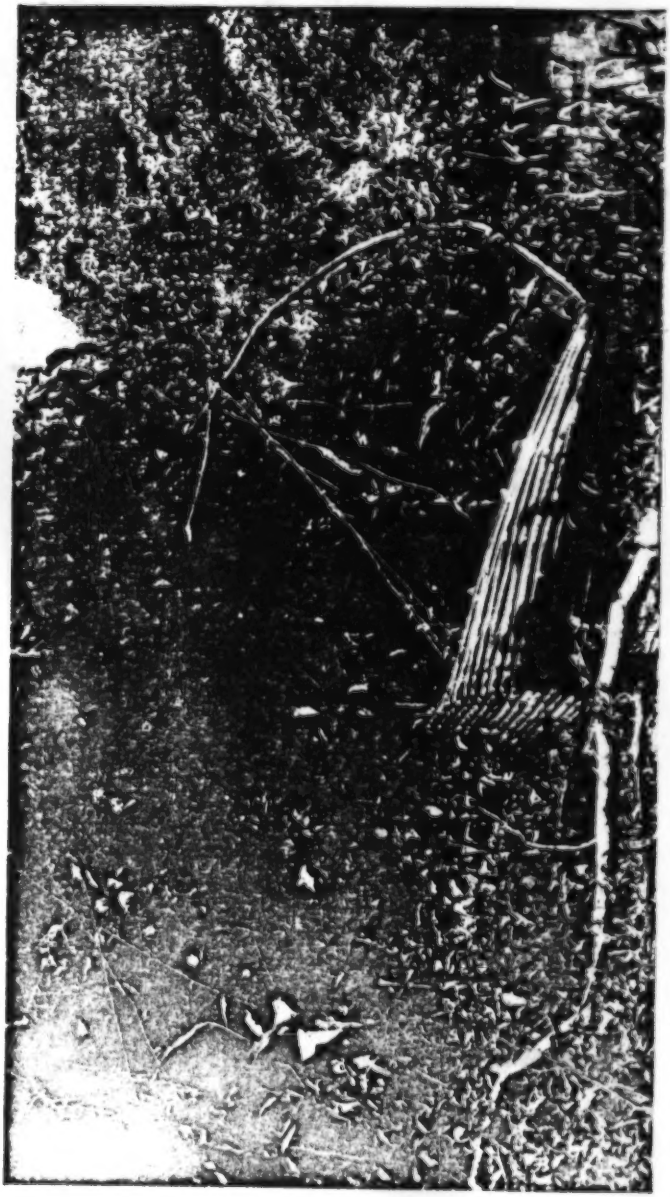
PL LXVIII



NEAR VIEW OF SPRING TRAP

BARRETT—CAYAPA INDIANS

[p. 126 (B)]

juice called guarapo in Spanish.

Basketry. Fans, baskets, and pouches, are made in the same style and technique as described by Barrett (Barrett 1925:183-250). There is a market for the fans which are used for fanning the embers in the fire-box when preparing a meal. They are often sold in the coastal towns of San Lorenzo and Esmeraldas as well as in the highland town of Ibarra. The money received for these fans is the property of the woman who made the fans, even though they were sold by her husband.

Weapons. The blowgun has disappeared from general use. Only a few specimens are left. All hunting today is done with the escopeta or muzzle-loading shotgun. Serving both as a tool and as a weapon is the machete or /múšte/, and both men and women are quite adept in its use.

Housing.

Probably the cultural feature of the Pacific lowlands which most quickly attracts the eye of the outsider is the type of house used by the rural Negroid population. This is the square or rectangular pile dwelling with four-shed hipped roof of thatch, a peculiar roof crown, and palm-lath floor

ripe, but most often it is boiled green and then pounded on a mortar. Bits of meat and/or fish may be added to the pulp. In this form it is called bala by both Negroes and Cayapa. In the ripe form, it may be boiled and treated as bala, or it may be eaten raw. Children eat enormous amounts of ripe plantain, and they never seem to become satiated. Important adjuncts to the subsistence pattern are the traveling merchants who bring canoe-loads of dried fish, clams, bread, cookies, sugar, and candy as well as smuggled Colombian cloth and clothing, up from the coast.

Hunting is a very important activity, and most Cayapa men spend one or two days a week tracking game. The main animals are large rodents called guanta /walámbu/, a smaller rodent called guatin /kúyu/, peccary /netúšu/, jaguar /kéla/, puma /lʸukéla/, monkey /wášu/, squirrel /yámbu/, and the armadillo /čilʸámbu/. Large birds are shot whenever possible and include toucans /čandútu/, the wild turkey /éle/, and a hawk /huyálʸu/. At the present time, hunting is done almost entirely with muzzle-loading shotguns. Hunting is generally a small operation involving no more than three

men, and occasionally only one shotgun is available to share among them.

Fishing is an important adjunct to the dietary pattern. Fish are dynamited, netted, speared, trapped, drugged, and hooked. Often a man or boy will work his canoe up-stream and then drift slowly down while he plays his hook and line which are tied to a light pole. The fisherman baits his hook with a lively grasshopper, drops his line into the water, then holds his arm motionless except for a slight movement of his wrist which causes the line to move with a sinusoidal motion. This favorite method can only be used when the river is very low. At these times, in the evening, three men or boys go out in a canoe moving slowly along the bank. One man paddles, another holds a flashlight or a pressure lantern, and the third man stands ready with a fish spear. The light attracts multitudes of fish, and the haul is invariably a huge one. Lobster can also be easily trapped when the river is low. A lobster trap, called <u>catanga</u> is baited with plantain. It is set under water alongside a bank that has some protuberance, such as a pile of driftwood. The mouth of the trap is placed so it faces